OLYMPUS®

DIGITAL VOICE RECORDER

WS-510M/WS-500M/WS-400S

EN INSTRUCTIONS
FR MODE D'EMPLOI
ES INSTRUCCIONES
PT INSTRUÇÕES

Thank you for purchasing an Olympus Digital Voice Recorder. Please read these instructions for information about using the product correctly and safely. Keep the instructions handy for future reference. To ensure successful recordings, we recommend that you test the record function and volume before use.

Gracias por haber comprado la grabadora digital de voz Olympus Digital Voice Recorder. Lea estas instrucciones para obtener información sobre el uso correcto de este producto y para su seguridad. Guarde estas instrucciones en un lugar a mano para su referencia en el futuro. Para tener éxito en las grabaciones se recomienda hacer un ensayo previo de la función de grabación y su volumen.

Merci d'avoir porté votre choix sur cet enregistreur vocal numérique. Lisez ce mode d'emploi pour une utilisation correcte et sûre de l'appareil. Conservez-le à portée de la main pour toute consultation ultérieure. Nous vous recommandons de tester la fonction d'enregistrement et le volume avant l'utilisation pour obtenir de bons enregistrements.

Obrigado por ter adquirido um Gravador de Voz Digital da OLYMPUS. Leia por favor estas instruções para obter informação sobre como utilizar correctamente e em segurança este produto. Mantenha as instruções em local acessível para futuras consultas.

Declaration of Conformity

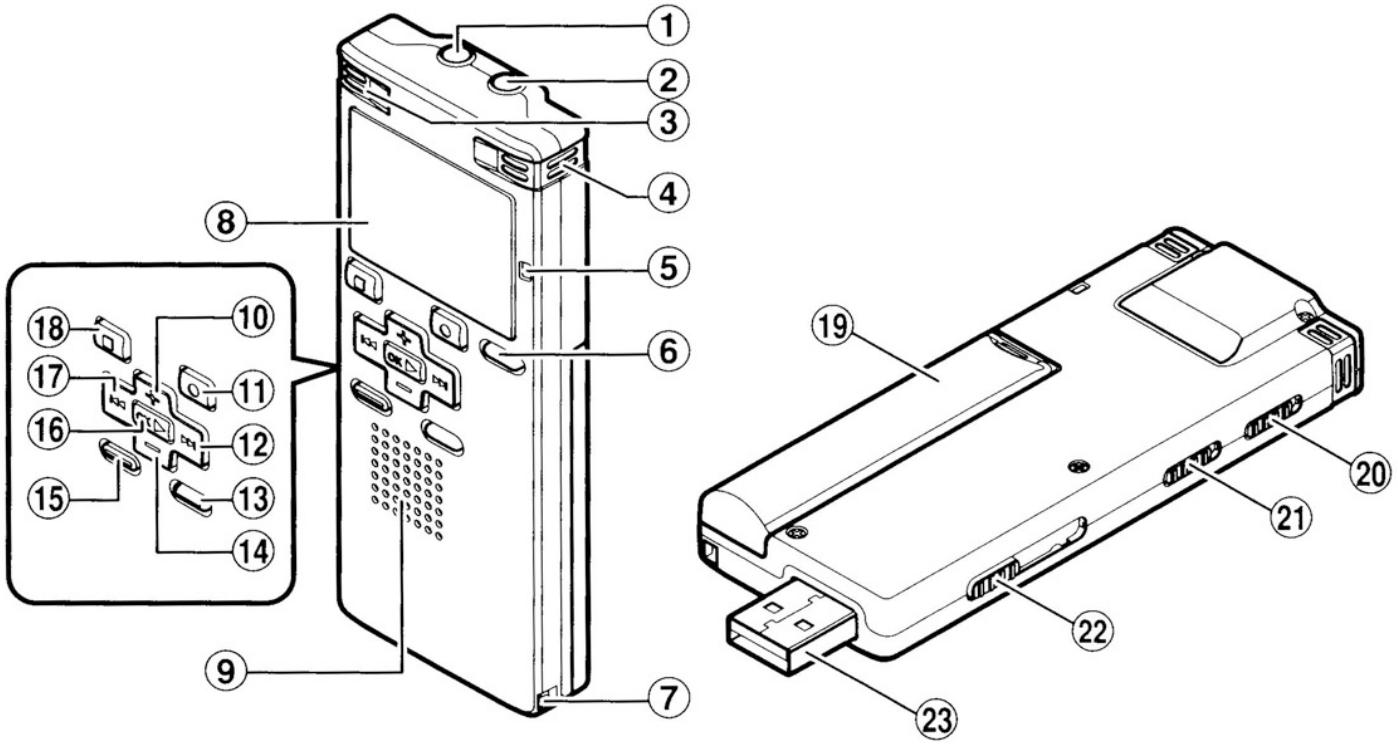
Model Number	: WS-510M/WS-500M/WS-400S
Trade Name	: DIGITAL VOICE RECORDER
Responsible Party	: OLYMPUS IMAGING AMERICA INC.
Address	: 3500 Corporate Parkway, P.O. Box 610, Center Valley, PA 18034-0610, U.S.A.
Telephone Number	:1-888-553-4448

This device Complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Tested To Comply With FCC Standards FOR HOME OR OFFICE USE

Canadian RFI

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the Radio Interference Regulations of the Canadian Department of Communications.
Cet appareil numérique ne dépasse pas les limites de la Catégorie B pour les émissions de bruit radio émanant d'appareils numériques, tel que prévu dans les Règlements sur l'Interférence Radio du Département Canadien des Communications.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3
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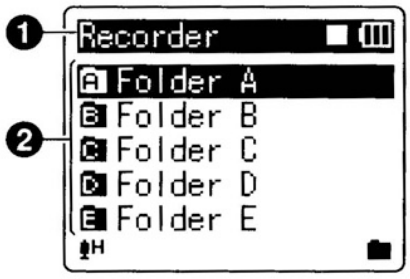
A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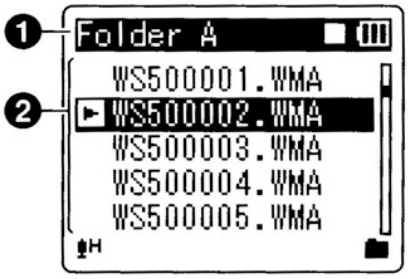
Recorder
2
A Folder A
B Folder B
C Folder C
D Folder D
E Folder E

B

3
Music
4
Music
09-Title I.wma
10-Titie J.mp3

C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WS500002.WMA
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WS500005.WMA

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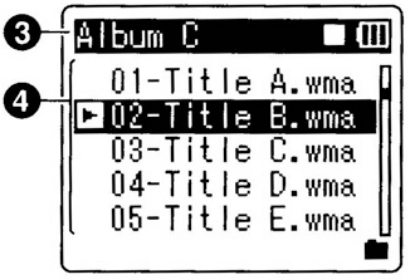
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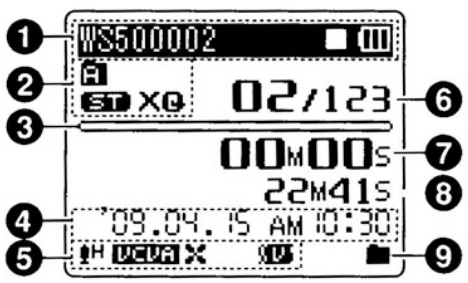
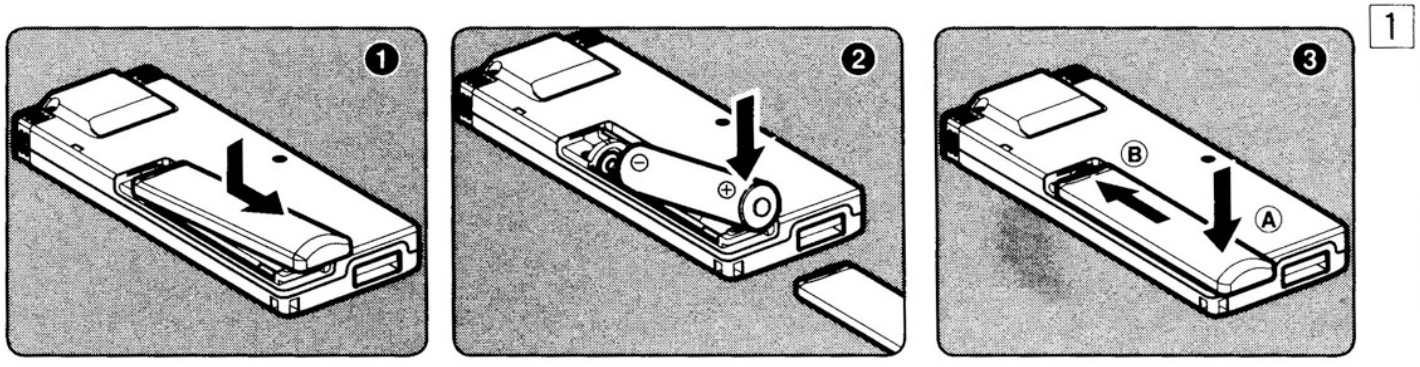
02-Title B.wma
03-Title C.wma
04-Title D.wma
05-Title E.wma

E


1
WS500002
2
3
02/123
6
00M00S
7
22M41S
8
4
'09.04.15 AM 10:30
5
9

F

01-Title A
01/15
15
10
Title A
11
Artist B
12
Album C
13
00M00S
05M02S
16
14
ROCK
17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1
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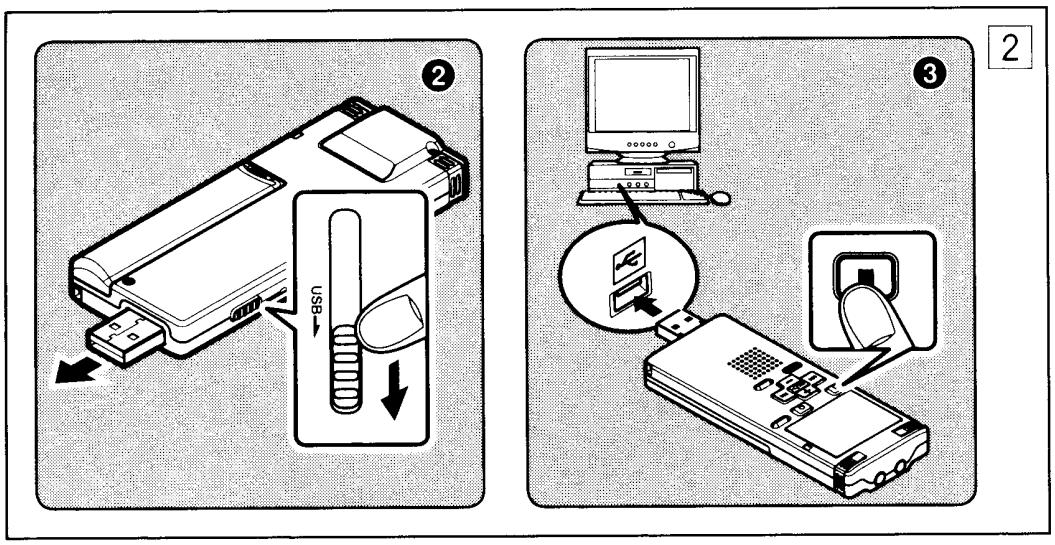
3
B
A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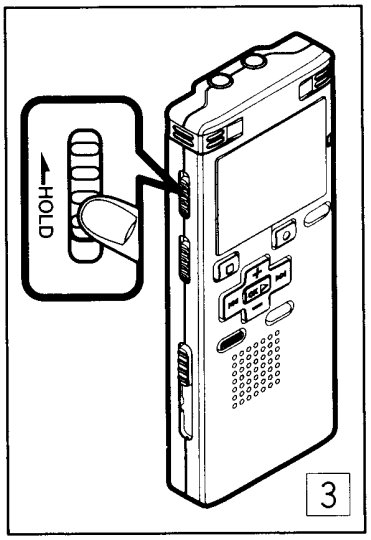
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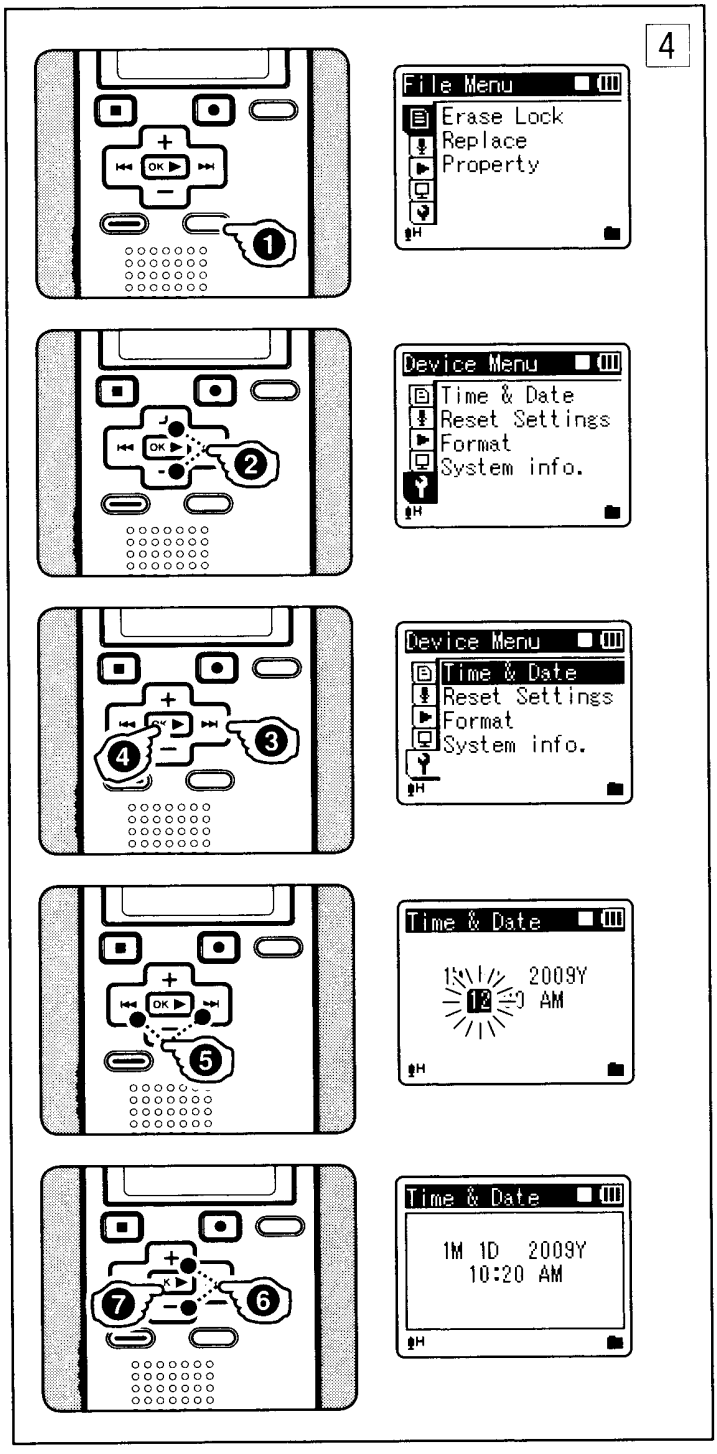
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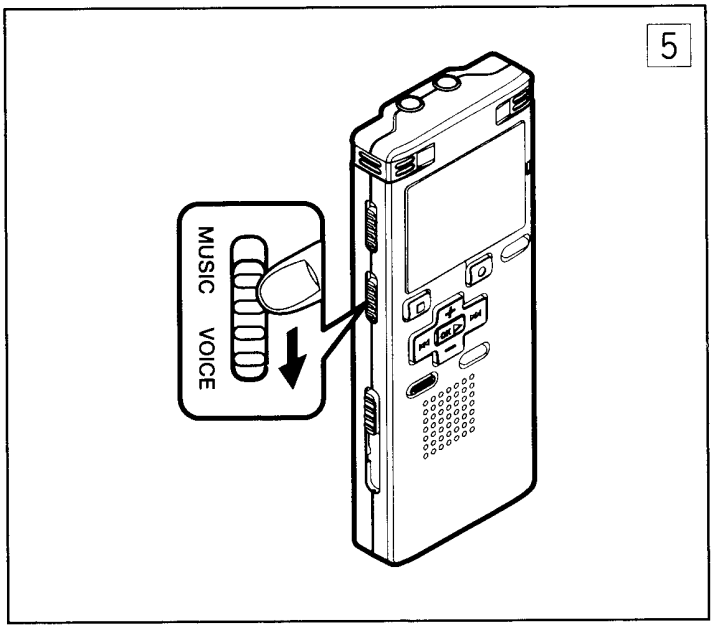
File Menu
Erase Lock
Replace
Property
Device Menu
Time & Date
Reset Settings
Format
System info.
Device Menu
Time & Date
Reset Settings
Format
System info.
Time & Date
2009Y
AM
Time & Date
1M 1D 2009Y
10:20 AM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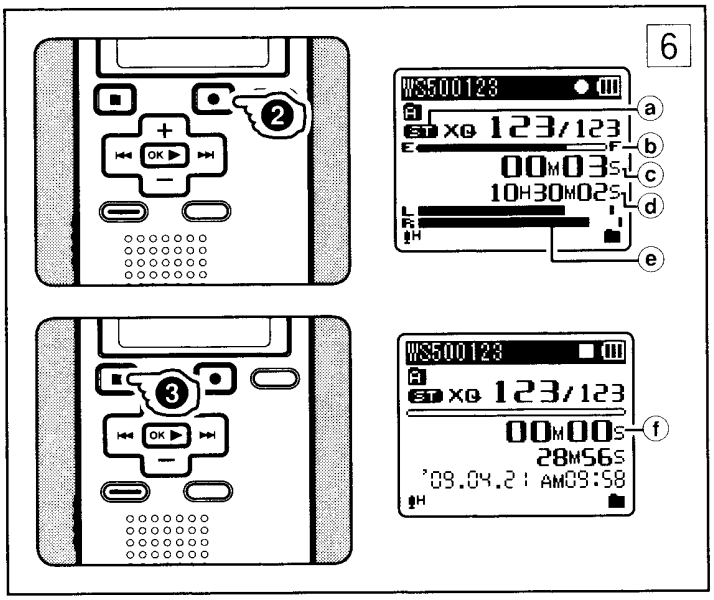
MUSIC
VOICE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WS500123
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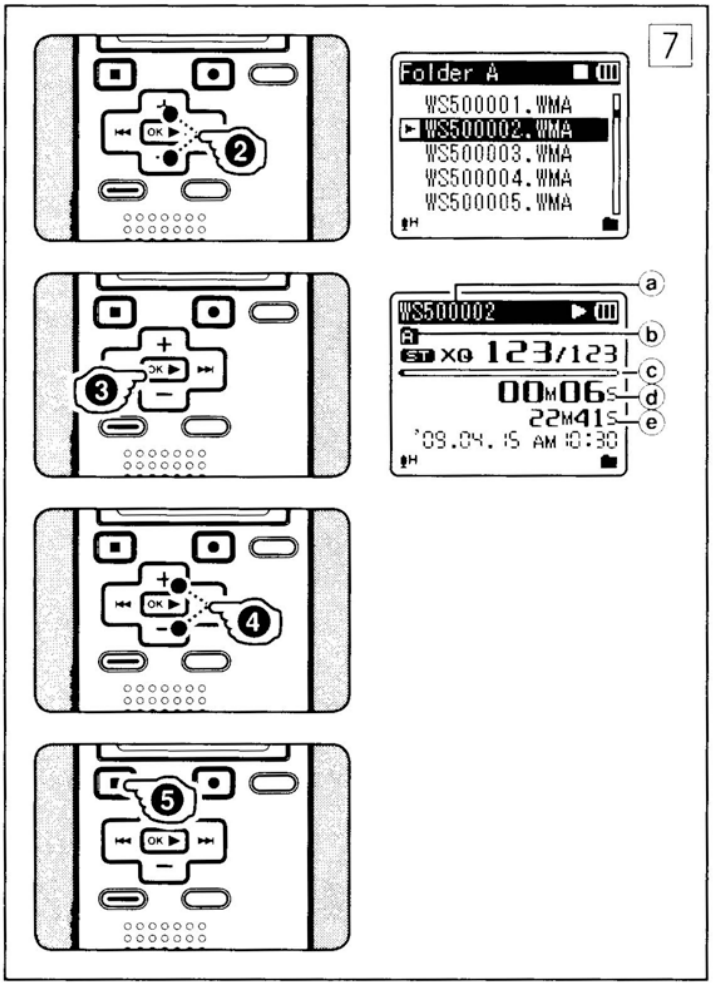
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Folder A
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WS500002.WMA
WS500003.WMA
WS500004.WMA
WS500005.WMA
WS500002
123/123
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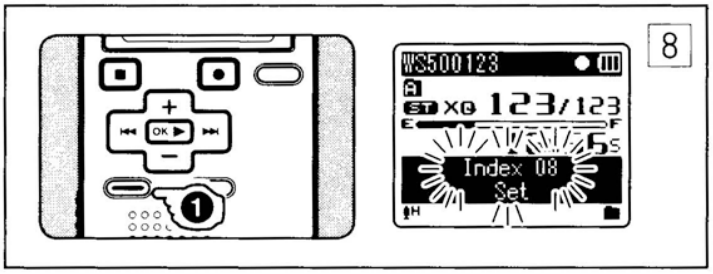
22M41S
'09.04.15 AM 10:30
a
b
c
d
e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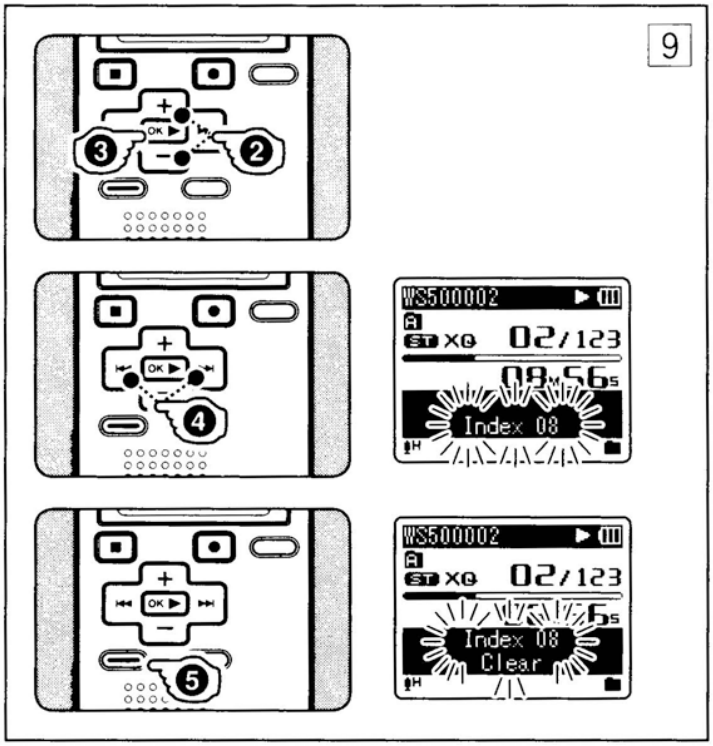
WS500123
123/123
Index 08
Set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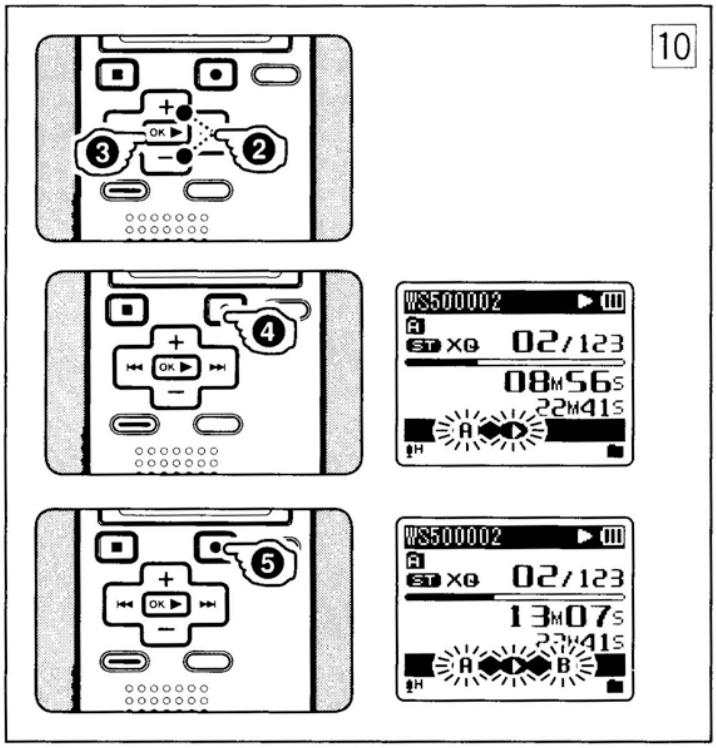
WS500002
02/123
08M56S
Index 08
WS500002
02/123
Index 08
Clear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WS500002
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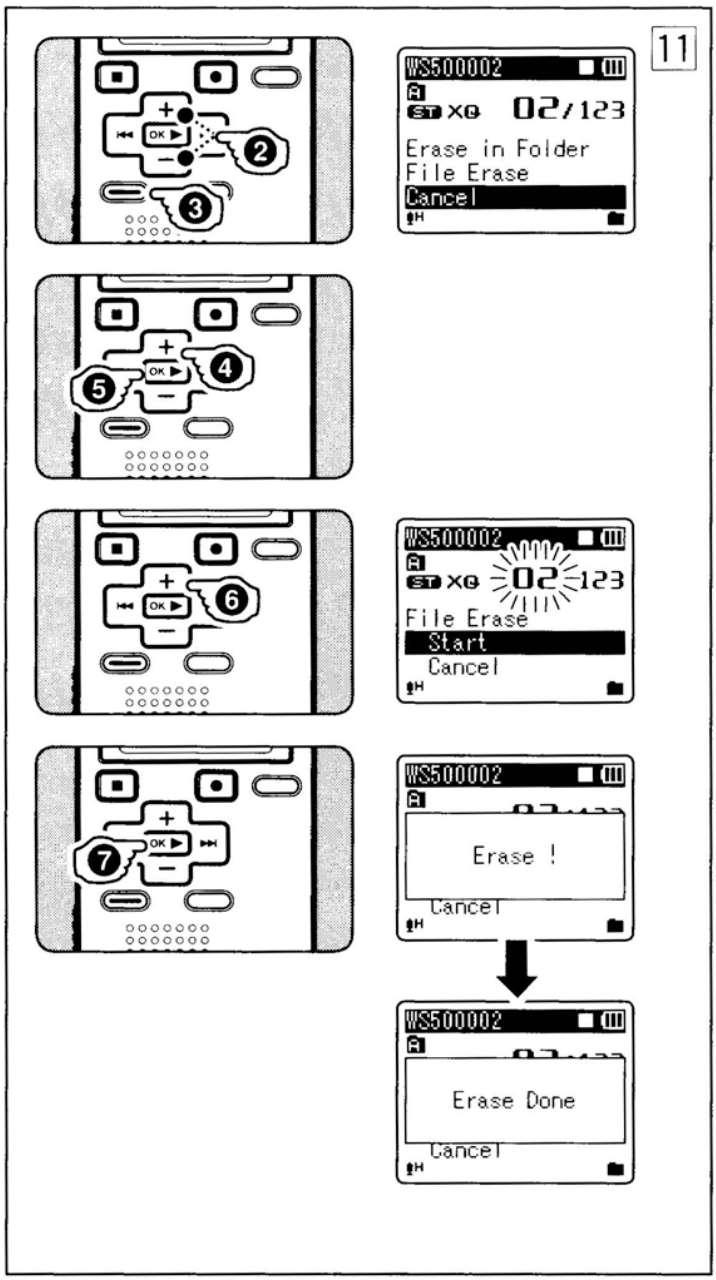
22M41S


11
WS500002
02/123
Erase in Folder
File Erase
Cancel
WS500002
02/123
File Erase
Start
Cancel
WS500002
Erase !
Cancel
WS500002
Erase Done
Cancel

EN Introduction

- This manual is a basic version. Please refer to the complete advanced manual either from the stored data in the [**OL_MANUAL**] folder of the recorder or download the data from the OLYMPUS website.
- The contents of this document may be changed in the future without advanced notice. Contact our Customer Support Center for the latest information relating to product names and model numbers.
- The utmost care has been taken to ensure the integrity of the contents of this document. In the unlikely event that a questionable item, error, or omission is found, please contact our Customer Support Center.
- Any liability for passive damages or damage of any kind occurred due to data loss incurred by a defect of the product, repair performed by the third party other than Olympus or an Olympus authorized service station, or any other reason is excluded.

Trademarks and registered trademarks:

- IBM and PC/AT are the trademarks or registered trademarks of International Business Machines Corporation.
- Microsoft, Windows and Windows Media are registered trademarks of Microsoft Corporation.
- Macintosh and iTunes are the trademarks of Apple Inc.
- MPEG Layer-3 audio coding technology licensed from Fraunhofer IIS and Thomson.
- SRS WOW XT, SRS and (●) symbol are trademarks of SRS Labs, Inc.
- SRS WOW XT technology is incorporated under license from SRS Labs, Inc
- The product was developed based on noise-canceling technology under license from NEC Corporation.

Other product and brand names mentioned herein may be the trademarks or registered trademarks of their respective owners.

Safe and Proper Usage

Before using your new recorder, read this manual carefully to ensure that you know how to operate it safely and correctly. Keep this manual in an easily accessible location for future reference.

- The warning symbols indicate important safety related information. To protect yourself and others from personal injury or damage to property, it is essential that you always read the warnings and information provided.

General precautions

- Do not leave the recorder in hot, humid locations such as inside a closed automobile under direct sunlight or on the beach in the summer.
- Do not store the recorder in places exposed to excessive moisture or dust.
- Do not use organic solvents such as alcohol and lacquer thinner to clean the unit.
- Do not place the recorder on top of or near electric appliances such as TVs or refrigerators.
- Avoid recording or playing back near cellular phones or other wireless equipment, as they may cause interference and noise. If you experience noise, move to another place, or move the recorder further away from such equipment.
- Avoid sand or dirt. These can cause irreparable damage.
- Avoid strong vibrations or shocks.
- Do not disassemble, repair or modify the unit yourself.
- Do not operate the unit while operating a vehicle (such as a bicycle, motorcycle, or go-cart).
- Keep the unit out of the reach of children.

Warning regarding data loss:

Recorded content in memory may be destroyed or erased by operating mistakes, unit malfunction, or during repair work.

It is recommended to back up and save important content to other media such as a computer hard disk.

Any liability for passive damages or damage of any kind occurred due to data loss incurred by a defect of the product, repair performed by the third party other than Olympus or an Olympus authorized service station, or any other reasons is excluded from the Olympus's liability.

Batteries

⚠ **Danger:**

- Batteries should never be exposed to flame, heated, short-circuited or disassembled.
- Never store batteries where they will be exposed to direct sunlight, or subjected to high temperatures in a hot vehicle, near a heat source, etc.

⚠ **Warning:**

- Do not solder lead wires or terminals directly onto a battery or modify it.
- Do not connect the ⊕ and ⊖ terminals together. This may cause fire, overheating or electric shock.
- When carrying or storing the batteries, be sure to put it in the provided case to protect its terminals. Do not carry or store the batteries with any metal objects (such as key rings).

  If this warning is not followed, fire, overheating or electric shock may occur.
- Do not connect the batteries directly to a power outlet or a cigarette lighter of an automobile.
- Do not insert the batteries with their ⊕ and ⊖ terminals reversed.
- If any liquid from a battery gets into your eyes, promptly wash it off with clean water and consult your doctor at once.
- Do not attempt to recharge alkaline, lithium or any other non-rechargeable batteries.
- Never use any batteries with a torn or cracked outer cover.
- Keep batteries out of the reach of children.

- If you notice anything unusual when using this product such as abnormal noise, heat, smoke, or a burning odor:
  1 remove the batteries immediately while being careful not to burn yourself, and;
  2 call your dealer or local Olympus representative for service.
- Do not expose the batteries to water. Do not allow water to contact the terminals.
- Do not remove or damage the batteries insulating sheet.
- Do not use the batteries if you find something wrong with them such as leakage, color change or deformity.
- Unplug the charger if the charging is still incomplete after the specified time it should take.
- Should any batteries liquid get on skin or clothing, promptly wash it off with clean water.
- Keep batteries away from fire.

⚠ **Caution:**

- Do not subject batteries to strong shocks.
- When using rechargeable batteries that have not been used for a while, be sure to recharge them before use.
- Rechargeable batteries have limited lifetime. When the operating time becomes shorter even if the rechargeable battery is fully charged under the specified condition, replace it with a new one.

Getting started

Identification of parts

① **EAR** (Earphone) jack
② **MIC** (Microphone) jack
③ Built-in stereo microphone (L)
④ Built-in stereo microphone (R)
⑤ Recording indicator light
⑥ **LIST** button
⑦ Strap hole
⑧ Display (LCD panel)
⑨ Built-in speaker
⑩ + button
⑪ **REC** ● (Record) button
⑫ ▶▶I button
⑬ **MENU** button
⑭ – button
⑮ **INDEX/ERASE** button
⑯ **OK** ▶ button
⑰ I◀◀ button
⑱ **STOP** ■ button
⑲ Battery cover
⑳ **HOLD** switch
㉑ Mode (**VOICE/MUSIC**) switch*
MIC SENSE CONF/DICT switch**
㉒ USB connector slide lever
㉓ USB connector

* For WS-510M, WS-500M only.
**For WS-400S only.

Display (LCD panel):

Folder list display:

For WS-510M/WS-500M: Ⓐ
When [**VOICE**] mode is selected:

For WS-400S: Ⓐ

❶ [**VOICE**] mode indicator
Record/ Playback status indicator
Battery indicator
❷ Folder name

For WS-510M/WS-500M: Ⓑ
When [**MUSIC**] mode is selected:

❸ [**MUSIC**] mode indicator
Record/ Playback status indicator
Battery indicator
❹ Folder name

File list display:

For WS-510M/WS-500M: Ⓒ
When [**VOICE**] mode is selected:

For WS-400S: Ⓒ

❶ Folder name
Record/ Playback status indicator
Battery indicator
❷ File name

For WS-510M/WS-500M: Ⓓ
When [**MUSIC**] mode is selected:

❸ Folder name
Record/ Playback status indicator
Battery indicator
❹ File name

File display:

For WS-510M/WS-500M: Ⓔ
When [**VOICE**] mode is selected:

For WS-400S: Ⓔ

❶ File name
Record/ Playback status indicator
Battery indicator
❷ Folder indicator
Recording mode indicator
❸ During recording mode:
Remaining memory bar indicator
During playback mode:
Playback position bar indicator
❹ Recording date and time
❺ [H] Microphone Sensitivity indicator
[VCVA] VCVA indicator
[N] Noise Cancel indicator
[V] Voice Filter indicator
[ ] Low Cut Filter indicator
❻ Current file number/ Total number of recorded files in the folder
❼ During recording mode:
Elapsed recording time
During playback mode:
Elapsed playback time
❽ During recording mode:
Remaining recording time
During playback or stop mode:
File length
❾ Playback mode indicator

For WS-510M/WS-500M: Ⓕ
When [**MUSIC**] mode is selected:

❿ Title name
⓫ Artist name
⓬ Album name
⓭ Elapsed playback time
⓮ [ ] SRS WOW XT indicator
[EQ] Equalizer indicator
⓯ Current file number/ Total number of recorded files in the folder
⓰ File length
⓱ Playback mode indicator

Inserting batteries (Fig. 1)

For WS-510M/WS-500M:

- When charging with the recorder, be sure to use the supplied specified Ni-MH rechargeable (BR401) batteries.

For WS-400S:

- This recorder cannot charge rechargeable batteries.

1 Lightly press down on the arrow and slide the battery cover open.

2 Insert size-AAA alkaline battery, observing the correct ⊕ and ⊖ polarities.

3 Close the battery cover completely by pressing to the direction Ⓐ, then sliding to the direction Ⓑ.

- If the "**hour**" indicator flashes in the display, see "**Setting Time and Date [Time & Date]**".

Charging by connecting to a computer via USB (Fig. 2)

For WS-510M/WS-500M:

Do not charge the primary batteries such as alkaline or lithium batteries. It may cause battery leakage heating and recorder malfunction.

1 Boot the PC.

2 Slide the USB connector slide lever in the direction indicated by the arrow to eject the USB connector out of the recorder.

3 While pressing the STOP■ button, connect to the PC's USB port.

- When charging the battery, press and hold the **STOP■** button until [**Please Wait**] is displayed.

4 Charging is completed when battery indication becomes to [F].

Note:

- If [**Cannot charge**] is displayed, it means that a battery that cannot be charged is in the recorder. Replace the batteries with supplied ones at once.

Turning on/off the power (Fig. 3)

Turning on the power:

Slide the HOLD switch in the opposite direction that indicated by the arrow.

Turning off the power:

While the recorder is during stop mode, slide the HOLD switch in the direction indicated by the arrow.

Power save mode:

If the recorder is stopped/not used for over 5 minutes after it is turned on, it goes into standby (power-save) mode, and the display shuts off. To exit standby mode and turn on the display, press any button.

Setting time and date [Time & Date] (Fig. 4)

When you use the recorder for the first time after purchasing it, or when the batteries have been inserted without the device having been used in a long time, the [**Set Time & Date**] will appear. When the "**hour**" is flashing, conduct the setup from Step 5.

1 While the recorder is during stop mode, press the MENU button.

2 Press the + or – button to select [Device Menu] tab.

- You can change the menu display by moving the settings tab cursor.

3 Press the OK► or ►►I button to move the cursor to the item to set.

4 Press the OK► or ►►I button.

- The "**hour**" will flash on the display, indicating the start of the Time and Date setup process.

5 Press the ►►I or I◄◄ button to select the item to set.

6 Press the + or – button to set.

- Follow the same steps by pressing the ►►I or I◄◄ button to select the next item, and press the + or – button to set.
- You can select between 12 and 24 hour display by pressing the **LIST** button while setting the hour and minute.
- You can select the order of the "**month**", "**day**" and "**year**" by pressing the **LIST** button while setting them.

7 Press the OK► button to complete the setting.

- The clock will start from the set date and time. Press the **OK►** button according to the time signal.

[VOICE] mode and [MUSIC] mode (Fig. 5)

For WS-510M/WS-500M:

[VOICE] mode:

Slide the mode switch to [VOICE] position.

[MUSIC] mode:

Slide the mode switch to [MUSIC] position.

Recording (Fig. 6)

For WS-510M/WS-500M:

- If the **REC●** button is pressed while the mode switch is set to [**MUSIC**], [**Music Mode**] will flash on the display. Set the mode switch to [**VOICE**] before recording.

1 Select the recording folder.

- Pressing the **LIST** button at the file display while stopped will return you to the next higher level. Pressing the **LIST** button repeatedly will bring you to the folder list display.
- Pressing button + or – at the folder list display will select the folders for voice recordings.

2 Press the REC● button to start recording.

- The recording indicator light glows and [●] will appear on the display.

ⓐ Recording mode
ⓑ Remaining memory bar indicator
ⓒ Remaining recording time
ⓓ Elapsed recording time
ⓔ Level meter (change according to the recording level and recording function settings)

3 Press the STOP■ button to stop recording.

- [■] will appear on the display.

ⓕ File length

Playback (Fig. 7)

For WS-510M/WS-500M:

- When playing back files transferred from a PC, set the mode switch according to the folder type.
- When playing back files recorded on the recorder, set the mode switch to [**VOICE**].

1 Select the folder which contains the files to be played back.

- Pressing the **LIST** button at the file display during playback or while stopped will return you to the next higher level. Pressing the **LIST** button repeatedly will bring you to the folder list display.
- Pressing button + or – at the folder list display will select the folders for voice recordings and press the **OK►** or **►►I** button.

2 In the File list display, press the + or – button to select the file that you want to playback.

- In the File display, press the **►►I** or **I◄◄** button to select a file.

3 Press the OK► button to start playback.

- [►] will appear on the display.

ⓐ File name
ⓑ Folder indicator
ⓒ Playback position bar indicator
ⓓ Elapsed playback time
ⓔ File length

4 Press the + or — button to adjust to a comfortable listening volume.

- The volume can be adjusted within a range from [**00**] to [**30**].

5 Press the STOP ■ button at any point you want to stop the playback.

- [■] will appear on the display.

Setting an index mark or a temp mark (Fig. 8)

1 While the recorder is during recording mode or playback mode, press the INDEX/ERASE button.

- Even after an index or temp mark is placed, recording or playback will continue so you can place index or temp marks in other locations in a similar manner.

Clearing an Index Mark or a Temp Mark (Fig. 9):

1 Locate the index or temp mark youwant to clear.

2 Press the ►►I or I◄◄ button to select the index or temp mark to erase.

3 While the index or temp number appears for approximately 2 seconds on the display, Press the INDEX/ERASE button .

- The index or temp mark is erased.

Note:

- Up to 16 index and temp marks can be set in a file. If you try to place more than 16 index or temp marks, [**Index Full**] message will appear for index marks, and [**Temp Mark Full**] for temp marks.

How to begin segment repeat playback (Fig. 10)

1 Select a file that has a segment you would like to play back repeatedly.

2 In the file list display, press the + or – button to select the file you want to clear.

3 Press the OK► button to start playback.

4 Press the REC● button at the point you want to start segment repeat playback.

- [A] will flash on the display.

5 Press the REC● button again at the position where you want to end segment repeat playback.

- The recorder repeatedly plays back the segment until the segment repeat playback is cancelled.

Note:

- As in regular play mode, playback speed can be changed during segment repeat playback as well. If an index mark and temp mark are inserted or eliminated during segment repeat playback, segment repeat playback will be canceled and it will return to regular play mode.

Erasing (Fig. 11)

1 Select the folder or file you want to erase.

2 In the file list display, press the + or – button to select the file you want to erase.

3. While the recorder is during stop mode, press the INDEX/ERASE button.

4 Press the + button to select [Erase in Folder] or [File Erase].

5 Press the OK► button.

6 Press the + button to select [Start].

7 Press the OK► button.

- The display changes to [**Erase!**] and erasing will start.
- [**Erase Done**] is displayed when the file is erased. File numbers will be reassigned automatically.

Notes:

- The locked files and files set as read-only cannot be erased.
- If an action is not selected within 8 seconds, the recorder will return to stop status.
- It may take over 10 seconds to complete processing. Never remove batteries during this time because data may be corrupted. In addition, replace the batteries with new ones in order to ensure that the batteries will not run out while processing.
- **For WS-510M, WS-500M only:**
  You can delete other than [**Music**] folders when the recorder is set to [**MUSIC**] mode. However, you cannot delete any folders when the recorder is set to [**VOICE**] mode.
- **For WS-400S only:**
  You cannot delete folders through therecorder.

Using the recorder on your PC

Operating environment

Windows:

Operating system:

Microsoft Windows 2000/XP/Vista (Standard Installation)

Compatible PC's:

Windows PC's equipped with more than one free USB port

Macintosh:

Operating system:

Mac OS X 10.2.8 -10.5 (Standard Installation)

Compatible PC's:

Apple Macintosh series equipped with more than one free USB port

Notes:

- This is an operational environment for saving the files recorded by this recorder to your PC with USB connection.
- Even if operational environment is satisfied, we do not support such as upgraded OS, the multi-boot environment and self-modified PC's.

Connecting to your PC

1 Boot the PC.

2 Slide the USB connector slide lever in the direction indicated by the arrow to eject the USB connector out of the recorder.

3 Connect to the PC's USB port or to a USB hub.

Windows:

When you open [**My Computer**], it will be recognized by the drive name of the product name.

Macintosh:

When you connect the recorder to a Mac OS, it will be recognized by the drive name of the product name on the desktop.

- [**Remote**] is appeared on recorder if the USB cable is connected.

Notes:

- Refer to the user's manual for your PC regarding the USB port on your PC.
- Be sure to push the cable connector all the way in. Otherwise, the recorder may not operate properly.
- Use the supplied USB extension cable depending on situations.
- Do not use USB extension cables other than the supplied cable. Using cables from other manufacturers could result in damage to the recorder. Do not use the supplied USB extension cable with devices from other manufacturers.
- If you are using Windows 2000, Windows Media Player must be installed on the PC.

Disconnecting from your PC

Windows:

1 Click [ ] on the task bar located at the lower-right corner of the screen. Click [Safely remove USB Mass Storage Device].

- The drive letter will differ depending on the PC being used.

2 When the safe to remove hardware window appears, click [OK].

3 Disconnect the recorder from the PC.

Macintosh:

1 Move the drive icon for this recorder that is appear on the desktop to the garbage bin by Drag & Drop it.

- When you connect the recorder to a Mac OS, it will be recognized by the drive name of the product name on the desktop.

2 Disconnect the recorder from the PC.

Note:

- NEVER disconnect the USB while the recording indicator light is flashing. If you do, the data will be destroyed.

Specifications

General points

Recording format:

WMA (Windows Media Audio)

Input level:

- 70 dBv

Sampling frequency:

[**ST XQ**] mode: 44.1 kHz
[**ST HQ**] mode: 44.1 kHz
[**ST SP**] mode: 22 kHz
[**HQ**] mode: 44.1 kHz
[**SP**] mode: 22 kHz
[**LP**] mode: 8 kHz

Frequency response:

During recording mode (Microphone jack):
[**ST XQ**] mode: 50 Hz to 19 kHz
[**ST HQ**] mode: 50 Hz to 15 kHz
[**ST SP**] mode: 50 Hz to 9 kHz
[**HQ**] mode: 50 Hz to 13 kHz
[**SP**] mode: 50 Hz to 7 kHz
[**LP**] mode: 50 Hz to 3 kHz
During recording mode (Built-in stereo microphone):
80 Hz to 20 kHz
During playback mode:
20 Hz to 20 kHz

Maximum working output:

60 mW (8 Ω speaker)

Recording medium:

Built-in NAND FLASH memory
WS-510M: 4 GB
WS-500M: 2 GB
WS-400S: 1 GB

Speaker:

Built-in ø 16 mm round dynamic speaker

MIC jack:

ø 3.5 mm mini-jack, impedance 2 kΩ

EAR jack:

ø 3.5 mm mini-jack, impedance 8 Ω or more

Input power requirement:

Batteries: AAA battery (LR03) or Olympus Ni-MH rechargeable battery

External dimensions:

94.8 mm × 38 mm × 11 mm (without protrusions)

Weight:

46 g (including battery)

Operating temperature:

0°C - 42°C/ 32°F - 107.6°F

Guide to recording times

WS-510M:
[**ST XQ**] mode: 69 h. 30 min.
[**ST HQ**] mode: 139 h. 35 min.
[**ST SP**] mode: 278 h. 10 min.
[**HQ**] mode:278 h. 10 min.
[**SP**] mode: 547 h. 25 min.
[**LP**] mode: 1,088 h. 05 min.

WS-500M:
[**ST XQ**] mode: 34 h. 30 min.
[**ST HQ**] mode: 69 h. 40 min.
[**ST SP**] mode: 139 h. 25 min.
[**HQ**] mode:139 h. 25 min.
[**SP**] mode: 247 h. 10 min.
[**LP**] mode: 544 h. 55 min.

WS-400S:
[**ST XQ**] mode: 17 h. 20 min.
[**ST HQ**] mode: 34 h. 45 min.
[**ST SP**] mode: 69 h. 35 min.
[**HQ**] mode: 69 h. 35 min.
[**SP**] mode: 137 h. 00 min.
[**LP**] mode: 272 h. 25 min.

Notes:

- The above values are strictly rough guides.
- Available recording time may be shorter if many short recordings are made. (The displayed available recording time and recorded time are approximate indications).
- A maximum recording time per file is set for each mode. Even if the recorder's memory is not used up, recording cannot be continued beyond the limit.

Maximum recording time per file	
[ST XQ]	26 h. 40 min.
[ST HQ]	26 h. 40 min.
[ST SP]	53 h. 40 min.
[HQ]	26 h. 40 min.
[SP]	53 h. 40 min.
[LP]	148 h. 40 min.

Guide to battery life

WS-510M/WS-500M ([VOICE] mode):
WS-400S:
During recording mode:
[**ST XQ**] mode: 15 h. 30 min.
[**LP**] mode: 21 h.
During voice file playback mode (All Playback Mode):
Alkaline battery
Built-in speaker: 12 h.
Earphone: 26 h.
Ni-MH Rechargeable batter
Built-in speaker: 12 h
Earphone: 22 h.

WS-510M/WS-500M ([MUSIC] mode):
During WMA file (128 kbps) playback mode (All Playback Mode):
Alkaline battery
Earphone : 26 h.
Ni-MH Rechargeable battery
Earphone: 22 h.

During MP3 file (128 kbps) playback mode (All Playback Mode):
Alkaline battery
Earphone : 25 h.
Ni-MH Rechargeable battery
Earphone: 21 h.

Notes:

- The above values are strictly rough guides.
- Battery life is measured by Olympus. It varies greatly according to the type of batteries used and the conditions of use.

Guide to recordable number of songs

WS-510M: 1,000 songs
WS-500M: 500 songs
WS-400S: 250 songs
(At 128 kbps, 4 minutes per song)

- Specifications and design are subject to change without notice.

Accessories (Optional)

- Stereo microphone: ME51S
- 2 channel microphone (omni-directional): ME30W
- Highly sensitive noise-cancellation monaural microphone (unidirectional): ME52W
- Tie clip microphone (omni-directional): ME15
- Telephone pickup: TP7
- Ni-MH rechargeable battery and charger set: BC400 (For Europe)
- Ni-MH rechargeable battery: BR401
- Connecting cord: KA333

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Warranty Continued

WHERE TO SEND PRODUCT FOR REPAIR

OLYMPUS SERVICE CENTERS

Olympus Imaging America Inc.
Consumer Products Group
400 Rabro Drive
Hauppauge, NY 11788
1-800 622-6372

Olympus Imaging America Inc.
Consumer Products Group
10805 Holder Street
Suite 170
Cypress, CA 90630-5145
1-800 622-6372

Out-of-warranty service may also be obtained at the Olympus Service Centers listed above.

INTERNATIONAL WARRANTY SERVICE

Olympus Canada
Consumer Products Group 151 Telson Road
Markham, Ontario Canada L3R 1E7
1-866-267-3039

Olympus Imaging de Mexico S.A. de C.V.
WTC Mexico, Montecito No.38 - Lobby - Office 3
Col. Napoles, Mexico D.F. 03810
01800-800-2128

IF YOU HAVE QUESTIONS OR NEED HELP

If you have questions about the use or performance of your Products or if you have any questions or comments regarding service performed in the United States which have not been resolved to your satisfaction, write directly to:
Olympus Imaging America Inc.
Consumer Products Group
3500 Corporate Parkway, P.O. Box 610, Center Valley, PA 18034-0610, U.S.A.
Attn: Service Manager

Model: _____ **Date of Purchase:** _____

Call us with any questions, comments or concerns at: 1-800-6-CAMERA,
or visit or website at www.olympusamerica.com

Please detach and keep this panel for your records

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Olympus Imaging America Inc. ("Olympus") warrants that the enclosed Olympus® audio product(s) and related Olympus® accessories (individually a "Product" and collectively the "Products") will be free from defects in materials and workmanship under normal use and service for a period of one (1) year from the date of purchase for desk-top transcriber, slide-switch Microcassette™, and digital audio Products and 90 days from the date of purchase for push-button Microcassette™ audio Products. If any Product proves to be defective within the relevant aforementioned warranty period, the customer must return the defective Product to an Olympus Service Center listed below (See **"WHERE TO SEND PRODUCT FOR SERVICE"**), following the procedure set forth below (See **"WHAT TO DO WHEN SERVICE IS NEEDED"**). However, it is recommended that the customer first call Olympus's Consumer Support Department at 1-888-55-DIGITAL (1-888-553-4448) for digital audio products or 1-800-622-6372 for Microcassette‰ audio Products, to attempt to determine the nature of the problem. Olympus, at its sole discretion, will repair, replace, or adjust the defective Product, provided that Olympus investigation and factory inspection disclose that (a) such defect developed under normal and proper use and (b) the Product is covered under this limited warranty. Repair, replacement, or adjustment of defective Products shall be Olympus's sole obligation and the customer's sole remedy hereunder. The customer is liable and shall pay for shipment of the Products to the Olympus Service Center. Olympus shall not be obligated to perform preventive maintenance, installation, deinstallation, or maintenance. Olympus reserves the right to (i) use reconditioned, refurbished, and/or serviceable used parts (that meet Olympus's quality assurance standards) for warranty or any other repairs and (ii) make any internal or external design and/or feature changes on or to its products without any liability to incorporate such changes on or to the Products.

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(b) any Product which has been disassembled, repaired, tampered with, altered, changed, or modified by persons other than Olympus's own authorized service personnel unless repair by others is made with the written consent of Olympus;

(c) defects or damage to the Products resulting from wear, tear, misuse, abuse, negligence, sand, liquids, impact, improper storage, non-performance of scheduled operator and maintenance items, battery leakage, or use of non-"OLYMPUS" brand accessories, consumables, or supplies;

(d) software programs;

(e) supplies and consumables (including but not limited to tapes and batteries); and/or

(f) Products which do not contain a validly placed and recorded Olympus serial number.

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This limited warranty is the complete and exclusive statement of warranty which Olympus agrees to provide with respect to the Products and it shall supersede all prior and contemporaneous oral or written agreements, understandings, proposals, and communications pertaining to the subject matter hereof.

This limited warranty is exclusively for the benefit of the original customer and cannot be transferred or assigned.

WHAT TO DO WHEN SERVICE IS NEEDED

Package the Product carefully using ample padding material to prevent damage in transit and either deliver it to the Authorized Olympus Dealer that sold you the Product or ship it postage prepaid and insured to the Olympus Service Center listed below (See **"WHERE TO SEND THE PRODUCT FOR SERVICE"**).

When returning Products for service, your package should include the following:

1. Sales receipt showing date and place of purchase.
2. Copy of this limited warranty bearing the Product serial number corresponding to the serial number on the Product.
3. A detailed description of the problem.
4. Sample tapes, files, and/or disks (as applicable).

When service is completed, the Product will be returned to you postage prepaid.

Warranty Continued on back side